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# INFORMATION REPORT INFORMATION REPORT

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#### HEALTH EDUCATION IN MOTHER AND CHILD HEALTH CARE IN THE USSR

Health education in mother and child in the USSR is an integral part of the entire system of medical and prophylactic aid to women and children.

Health education is aimed at extending the knowledge of the parents and giving them the necessary habits in hygienic care, feeding and bringing up of their children.

Health education of the parents has a direct bearing on the proper physical development of a child and on the decrease in child morbidity.

The achievements of the USSR in decreasing the death rate among children are the direct result of the daily care of the Soviet government for mothers and children, the growth of general and health culture of the family and better living conditions of the Soviet people.

The Soviet Union carries on a rational system of prophylaxis and health education for protecting the mother and child. Health education among parents is conducted by all the doctors and nurses of urban maternity homes and children's medico-prophylactic institutes as well as by doctors, doctors' assistants and obstetricians in all rural hospitals, first aid stations and maternity homes in collective farms. All pregnant women are under constant medical observation by the obstetricians and gynaecologists of women's consultation centres. They also conduct health education among pregnant women. They raise health knowledge of the expectant mothers in order to provide a proper regimen of nutrition, to prevent possible complications of pregnancy and labour and to create an appropriate hygienic and sanitary environment.

Doctors of the women's consultation centres conduct a series of special lectures on the psycho-phylaxis of pains in labour for all expectant mothers.

Women's consultation centres organize schools for pregnant women where they undergo a course of 5-6 lessons according to a special program.

Women's consultation centres also carry out education of mothers by means of specially published series of booklets. Pregnant women first read each booklet and then talk to a doctor or a midwife of a consultation centre who check up their knowledge. Much work is being done by women's consultation centres in the field of preventing abortions.

Almost all women in the USSR bear children in maternity homes or maternity departments of hospitals where each mother stays for 8-9 days. As early as the second or third day after delivery doctors and midwives continue the education of each mother. She is taught correct hygienic methods in the post-natal period, child care, correct feeding of the baby, etc. All women are instructed in the maternity home irrespective of their previous knowledge on these questions. To achieve better results, alongside with doctors' talks and distribution of booklets various visual aids are also used: albums, slides, filmstrips, special displays and health education posters prepared by the workers at women's consultation centres and maternity homes.

On the first or second day after discharge from the maternity home the mother is visited by a pediatrician or a health visitor from the children's consultation centre or polyclinic. Depending on the living conditions of the family the mother is advised how to improve the care the newborn infant, what is the best feeding schedule, what the mother should eat, etc. From this moment on the mother and child are under constant observation of the children's consultation centre. A health visitor visits each healthy infant three times during the first month of life and later on, twice a month.

The nurse gives necessary advice taking into account the age of the child and checks up if the mother follows the health instruction previously given to her. If the nurse finds out drawbacks in the care of the child or in the regimen she tells the mother how to correct them, and gives her necessary leaflets and booklets to help her to learn better hygienic rules. The leaflets and booklets brought by the nurse are usually read by other members of the family: father, grandmother or elder children who help the mother to attend to the baby. Thus health knowledge is given not only to the mother but to the whole family.

Children's consultation centres often organize lectures and talks for mother on various health and medical pro-

blems. Special rooms are set up in children's consultation centres for young mothers where they are taught and given demonstration on what clothes children of different age should wear, what dishes and crockery they require, what food should be given to them and how this food should be prepared. In these rooms young mothers are also taught how to do massage and run gymnastics for children of different ages what measures must be taken to make the child immune to illness, how to develop its speech, what toys are useful for child, etc. Such individual health education methods are very important and effective.

Mass forms of health propaganda are also intensively applied in the USSR. Houses of Culture and workers' clubs hold meetings for young mothers and fathers. These meetings are usually very popular. At these meetings talks are given by doctors (obstetricians, gynecologists or pediatricians), lawyers and other specialists. Health educational films are also shown and consultations are given on the care of health and development of children.

In carrying out health educational work much attention is devoted to the questions of rational breast feeding, to the role of vitamins, vegetables and fruit in nutrition, to the strengthening of children's health and to the prevention of acute infectious diseases in children. Parents are especially instructed on the importance of vaccination against various infectious diseases, and compulsory time limits of inoculating children. Much attention is also given to developing good health habits in children and to other educational questions.

The ramified health-educational work in mother and child health care requires methodological guidance and appropriate visual aids. The Central Research Institute for Health Education of the USSR Ministry of Public Health is a scientific centre for health education in methodology in the country; it works out methods of health education as well as samples of various visual aids on mother and child health care, such as posters, slides and exhibitions on various health problems.

The Institute sends out instructions on various methods of disseminating health knowledge to the Centres for Health Education (whose total number in the Soviet Union is 360) which in turn render methodological guidance in health education to doctors and doctor's assistants at me-

dical-prophylactic establishments and maternity homes. The Institute works out methodological material and visual aids on the basis of the research carried out by its workers.

While elaborating the methods of health education elaborated by the research workers of the institute are first tested in appropriate medical-prophylactic establishments and recommend them to medical personnel only when favourable results are obtained.

Health education in the USSR makes a wide use of radio, local press, cinema and television.

From 12 to 15 popular health educational films on various questions of hygiene and medicine are made to the order of the USSR Ministry of Public Health. About half of these films are on mother and child health. These films are shown before features films in cinemas, workers' and rural clubs, Houses of Culture, parks of culture, recreation, and so on, as well as after health talks given by doctors.

In view of total literacy and a high level of general culture in the USSR, books on health, in particular, on children's health are very popular. To help the parents, as has been said above, series of written lectures are issued for educating mothers by correspondence, and the series for country population take into account rural conditions.

The following journals are published: "Pre-School Education", "Family and School", "Health" — a magazine for lay population — as well as other materials which help the population to acquire necessary knowledge on health care and education of children. Special TV health programmes are also arranged. Such is the system of health education which helps to raise the health knowledge of the USSR population in the field of mother and child health and rational upbringing of the growing generation.

### Organization of the Women and Children's Health Protection in Uzbekistan

(A Brief Information) 28 1960

One of the principal parts of Soviet Public Health is the therapeutic and prophylactic service of women and children. In Uzbekistan specialized medical network for the protection of women and children's health began to be formed only after the Great October Socialist Revolution. In prerevolutionary Uzbekistan there was no health service for women and children. Just before the revolution there were only 69 delivery beds and 3 orphanages in the large cities of Uzbekistan. There were only 63 midwives.

There were no specialized women or children's institutions such as hospitals, health centres, children creches, children gardens and others.

The bad living conditions of the majority of the local population, the absolute absence of majority public health on the part of the tzarist government, the backwardness of the population, and the absence of specialized medical service caused the high mortality rate, especially among children. The absence of medical aid during delivery was the cause of the high per cent age of mortality among women and newborns.

On the first day the Soviet Government came into power, women and children's health protection was proclaimed an urgent problem of the state.

In 1917 an extensive programme of measures on the protection of women's labour and women and children's health was adopted: early marriages were prohibited; women were not allowed to be employed in industries harmful for their health; the allotment of antepartum and postpartum leave for women retaining their wages or salaries; medical and medicinal aid for them during this period being free of charge women have the right to leave work every 3 hours, to nurse their infants; the organization of children creches at the industrial

enterprises, organization of rooms for the nursing of infants etc.

In the first years the Great October Socialist Revolution children's institutions of the closed type were organized in Uzbekistan, i. e. infant homes and children's boarding homes. The organization of these children's institutions was necessary for helping the children, who lost their parents during the First World War or during the Civil War and foreign intervention. Up to 1922 3 infant homes and 10 boarding homes were organized. Beginning with 1922 the gradual development of children's institutions of the open type was started. By 1924—the year the Republic was delimited—there were already six infant homes for 222 infants, ten children's boarding homes, five women and children's health centres, three children's creches for 80 children, one factory of dairy and a University paediatric clinic of the medical faculty in Uzbekistan.

In 1927 in Tashkent a scientific research institute for women and children's health protection was organized. This Institute carried out great and useful work on the study of regional pathology, professional harmful conditions of work at different enterprises where women's labor was chiefly used, on the organization of women and children's therapeutic and prophylactic institutions, and on the methods of their work in connection with the training of medical workers. Simultaneously this Institute carried out sanitary-educational work on the eradication of all harmful survivals in the life of the Uzbek people as well as the systematic work on the liberation of Uzbek women, on the social-judicial protection of mothers and children, and so on.

A great development of therapeutic and prophylactic service of women and children was noted in the Republic from 1936 in connection with a special government decision about the increase of pecuniary aid for pregnant women and mothers, the organization of State aid for mothers, many children, and about increasing kindergartens of the network of delivery hospitals, children's creches, and other institutions.

By the 1-st of January 1940 a wide network of children's therapeutic and prophylactic institutions was set up in Uzbekistan: there were 198 independent women and children's health centres (76 in cities and 122 in villages), 1415 stationary children's creches for 42 477 children (240 in cities for 12 895 children, and 1175 in rural areas for 29 492 children), eight children homes with 563 beds and 28 health resorts for children with 3349 beds.

The measures for the protection of women and children's health carried out by the government are directed at the following

to give the women the possibility to be good mothers and at the same time actively participate in the economic, cultural and public health of our country on an equal footing with men.

The decree of the Presidium of the Supreme Soviet of the USSR published 16 years ago—8/VII 1944 „On the increase of State financial help for pregnant women, mothers of many children, and single mothers, on the improvement of women and children's health protection, on awarding the honorable title „Mother-Hero“, the order „Maternal Glory“ and the „Maternity Medal“ is a remarkable document, testifying the constant solicitude of the government for the protection of women and children's health. The upbringing of children by women is considered to be a work, worthy of the highest appreciation.

From the day this decree was published the title „Mother-Hero“ was awarded to more than 1600 women in Uzbekistan; more than 350 000 mothers of many children have been conferred the decoration „Maternal Glory“ and „Maternity Medal“; the State paid off to these women and to single mothers nearly 3 milliard roubles of gratuity.

In 1956 our government adopted a law on increasing the duration of leave for pregnancy and labour from 77 to 112 days (56 days antepartum and 56 days postpartum), and in cases of pathological pregnancy or labour, or in cases of multifetation the leave is increased to 70 days postpartum; for this period all women receive paid leave from work.

On this material, legal, and moral base the entire system of women and children's therapeutic and prophylactic institution is organized in Uzbekistan, which protects the health of women, pregnant, mothers and their newborns.

At the present time in Uzbekistan there are 252 women's health centres (134 in cities and 128 in villages), 8240 obstetric-gynecological beds in hospitals 50% of which are in the rural hospitals.

For the children's health service there are 264 children's health centres, 6900 hospital beds, 18 children homes with 1300 beds, 36 children's sanatoriums, 1629 permanent children's creches with 61 500 beds. Besides during seasonal agricultural work in kolkhozes and sovkhoses of the Republic more than 8 thousand creches for 200 thousand children are organized during the heavy seasons.

This amount exceeds that of the pre-war year figure of 1940 by 2—3 times. Of great significance to the population are the kolkhoz maternity hospitals, which were organized

Beginning with 1935 on the initiative of advanced kolkhozes. They developed fully only during the years after World War II.

Simultaneously with the growth of this network of medical service the amount of medical personnel also increased. In comparison with 1940 the number of physicians by 1960 increased from 323 to 1408, the number of obstetrician-gynecologists from 220 to 700, and the amount of midwives and feldscher-midwives from 1956 to 2853.

Besides the development of network of health centres, maternity hospitals, children's creches, etc., the network of district, sectional hospitals, out-patient departments, and feldscher-obstetrical centres was organized in the Republic; these institutions carried out great therapeutic and prophylactic work among the women and children in the rural areas of the Republic. In comparison with the prewar year of 1940 the number of district hospitals in rural areas of the Republic increased from 51 to 104, the number of sectional hospitals from 132 to 442, the number of feldscher-obstetrical centres from 882 to 2653.

At industrial enterprises the factory administration and trade-union organizations founded rooms of individual hygiene for women and rooms for nursing women, medical stations, etc.

In addition to this there is a wide network of specialized dispensaries, sanatoriums, water and mud baths, etc. in the Republic. During the last years special dispensaries and rooms of the pathological climacteric, children's gynecology unfertility have begun to be established.

During the whole period of development the organizational forms and methods of work of the institutions, dealing with women and children's health protection have also been improved.

The principal institution, dealing with the organization of therapeutic and prophylactic service of women, is the obstetric-gynecological station which consists of a hospital and polyclinic-women's health centre with all specialized physician's rooms and all the necessary medical equipment (roentgen rays and physiotherapeutic apparatus, clinicodiagnostic laboratories, and so on).

In cities and worker townships of the republic maternity hospitals serve as obstetric-gynecological station in rural areas this functions carried out by the obstetric-gynecological departments of the district and sectional hospitals.

On analogy with this the therapeutic and prophylactic service for children is organized. The chief institution of the children's therapeutic and prophylactic service is the children's

station consisting of a hospital (stationary) and a polyclinic-children's health centre, or a polyclinic with all specialized and additional rooms. In cities and worker's townships such children's stations are the local children's hospital; in rural localities—the children's departments of district and sectional hospitals.

Besides there are independent specialized nonunified women and children's health centres and polyclinics both in cities and in the villages of the Republic.

The work of the women and children's health protection service in the Republic is guided by the Ministry of Public Health in particular by the Department of therapeutic and prophylactic aid of women and children together with the republican children's methodical room; in different regions this work is carried out by corresponding section of the regional public health departments and by regional hospitals; in cities this work is fulfilled by urban public health departments, and in the rural areas—by obstetric-gynecological and children stations of the district hospitals. Attached to all these institutions are councils for the therapeutic and prophylactic service of women and children organizers of public health, clinicist-paediatricians, obstetrician-gynecologists, infectionists, epidemiologists are on their staff as well as active members of population. These councils not only consult the organs and institutions of public health, but give them practical assistance as well.

From 1942 posts of city and district paediatricians and obstetric-gynecologists were established, and from 1952—posts of republican and regional chief specialists—paediatricians and obstetric-gynecologists were established too. These are most skilled physicians with experience of many years of service and doctor's or candidate degrees of medical sciences.

The chairs of paediatrics, obstetrics, and gynecology of medical institutes take an active part in the organization of specialized service for women and children. They also carry out great research work in connection with these branches of public health.

The training of the personnel is carried out by medical institutes and by the faculties of secondary medical schools of the Republic.

Refresher training of physicians and of junior medical personnel of different specialties is carried out by the Tashkent Institute for Refresher training at local bases, i. e. at regional and district hospitals.

Since 1924 the scientific society of paediatricians and the scientific society obstetrician-gynecologists have been working

in the Republic. These societies apart from scientific research work render support to all public health organs and separate institutions, take part in organizing and convening of republican interregional and interdistrict congresses, conferences, and meetings of paediatricians and obstetrician-gynecologists, and carry out all work on the refresher training of medical personnel.

## II

The prophylactic trend of the Soviet Public health has created most favourable conditions for the bearing and birth of full-term healthy infants. For this purpose a well-proportioned system of child-birth services has been created in the Republic.

A great role in the protection of women's health is played by the women's health centre, which is a chief link in the whole system of the obstetric-gynecological station. The women's health centres work in accordance with the dispensary method, which helps the active and early diagnosis of early phases of diseases, the systematical observation of pregnant and sick women with the application of all possible methods and means of examination (roentgen, laboratory and others) and treatment; it helps also to carry out extensive prophylactic measures for the prevention of different diseases, the improvement of conditions of work and life and carries out wide work on the sanitary enlightenment among the population.

Besides women's health centres at industrial enterprises carry out work on the study of the working conditions at factories, on the oblation of harmful industrial factors, and on the rational use of pregnant women at work; they also carry out methodical guidance and control the work of the rooms of personal hygiene and the rooms of nursing women.

The work of the women's health centres is organized according to territory and at the industrial enterprises is carried out by factories and shops. For this purpose region, served by women's health centre, is divided in to special section (territorial and shop sections). One obstetrician-gynecologist and a midwife are attached to each section. The work of these specialists is organized according to a special schedule with the separate reception of pregnant women and gynecological patients at different hours at their convenience.

Great significance in the work of the women's health centres is attached to the medical examination of pregnant women at early stages of pregnancy in order to carry out prophylaxis and timely diagnosis of pathologic conditions in pregnancy and labour.

At the first visit to a women's health centre the physician makes a close examination of the pregnant woman (roentgenoscopy and roentgenography of the thorax, the analyses of urine and blood, electrocardiography, etc.).

Each pregnant woman is obligatory examined by the therapist and dentist.

During the later period of pregnancy all women are under the permanent observation of the section physician (obstetrician-gynecologist) both ante- and postpartum.

Systematical observation is based on reliable permanent cooperation of the pregnant woman with the women's health centre. This is achieved by means of periodical visits to the centre by pregnant women (when the pregnancy and labour are normal the visits are paid 6—8 times, and for postpartum women—2—3 times) and by means of patronaging pregnant and postpartum women at home. During each visit the blood pressure is measured and the analysis of urine is made once a month.

The patronaging is carried out by the midwife according to the prescription of the physician (without call) and makes it possible for her to become familiar with the family life of pregnant and postpartum women, to control the fulfillment of the prescribed regimen, and to send them to the physician, or to call the physician to their home if necessary.

This thorough medical service of women makes it possible to find out in due time all deflections in the course of pregnancy and to give such women skilled medical help. Great attention is paid to pregnant women during the last 8—20 weeks of pregnancy.

Besides the prophylaxis and diagnosis of all pathological conditions as early as possible, the systematical observation of pregnant women help the latter to gain knowledge in hygiene, as well as social juridical assistance.

In order to render all kinds of specialized medical aid women's health centres in its work always cooperate with tuberculous, venereal, and cancer dispensaries, as well as with district polyclinics.

The observation and treatment of pregnant women with extragenital diseases is carried out by the obstetrician-gynecologist in cooperation with other specialists. Women, with pathological pregnancy, threatening abortion, and different extragenital diseases, as well as women, who had during previous pregnancy nephropathies, epilepsy, multifetation and large quantities of waters are registered separately and hospitalized. Pregnant women with pelvic contraction, scars of the uterus after the caesarian section and other operations, with the



transverse position of the foetus, and with the extragenital diseases are hospitalized in the maternity hospital in advance, 2—3 weeks before delivery time; women with bad scars of the uterus are hospitalized 4—5 weeks before delivery.

In the past years a very important role in the work of women's health centres was occupied by the psychoprophylactic preparation of pregnant for labour, based on the teachings of I. P. Pavlov on the activity of the higher nervous system.

The psychoprophylactic preparation of pregnant women for labour begins from her first visit to the women's health centre and is carried out systematically during the whole period of pregnancy. This method secures the consciousness and calm behaviour of women during labour, causes the diminishing or total absence of labour pains and favourably influences on the course of labour.

For early detection of sick women in the early phases of different diseases the specialist, working at a women's health centre, organizes the prophylactic examination of women not less than once a year.

At industrial enterprises physicians of the chief specialities (therapeutists, obstetrician-gynecologists, phthisiatrists, ophthalmologists) have the complex prophylactic examination of women. During such prophylactic examination women's health centres are directly connected with specialized dispensaries and rooms (cancer, skin and venereal diseases and anti-tuberculous).

During such prophylactic examination special attention is paid to early diagnosis of precancerous conditions and malignancies.

All patients discovered during such prophylactic examinations are subjected to treatment. For some categories (precancerous conditions, chronic and subacute inflammatory lesions of genitalia with frequent exacerbations, benign tumors of genitalia, the disturbance of menstrual cycle, etc.) the method of systematic (dispensary) observation is used.

Sanitary-educational work among women, carried out on different medical subjects by women's health centres, also follows the purpose of prophylaxis. This work explains the reasons of timely appeal of the women's health centre to the women and helps to raise the hygiene both at home and at work. Great attention is paid to the control of abortion.

There are many forms of sanitary-educational work.

Women's health centres organize shows, talks, lectures, the demonstration of sanitary educational films, broadcast speeches, television performances, reports in the press, etc. This work is carried out by women's health centres, industrial enterprises, in kolkhozes, sovkhoses, etc.

All data on the systematical observation of the pregnant women are noted in the card of the pregnant woman. For gynecological patients individual cards are also filled in at the women's health centre.

When the women's health centre sends the patient to the obstetrical hospital, the woman receives an exchange card for successive observation and treatment; this card includes a short description of the clinical conditions of the patient.

When the patient is discharged from the hospital this exchange card with short information about the recently confined woman and her newborn is directed to the women and children's health centre.

When the gynecological patients are hospitalized the card of the out-patient individual is passed to the hospital, which in its turn directs it to the Women's health centre when the patient is discharged.

According to the principle of work of the women's health centres the work of feldscher-obstetrical centres and kolkhoz maternity hospitals is organized.

The hospitals (stationary) of obstetric-gynecological stations have the following divisions:

1. The physiological department consisting of a reception-capacity centre, a delivery block, (antepartum room, delivery room, operation room, and a special room for women, suffering from eclampsia), postpartum wards, and a department for newborns where special wards are organized for nursing premature infants.

2. A department for women with pathological pregnancy.

3. A observational department.

4. A gynecological department.

In large maternity hospitals a septic department is also organized; it is isolated from all other department at women's health centres methods of hormonal and medicinal therapy, the blood transfusion method, and so on are other widely used.

The obstetric-gynecological hospitals (stationary) secure for the recently confined women all required skilled medical assistance and treatment of gynecological patients. The prophylaxis of blennorrhoea of newborns is carried out by the Matveev's method; BCG vaccination is also carried out in all cases, having no contraindications.

Systematical observations and skilled medical service of pregnant women bring about favourable results of pregnancy and delivery. For the past 5 years maternal mortality in the Republic diminished by 1.5 times, delivery trauma decreased

by 2 times, the morbidity of pregnant women with eclampsia diminished to 20.8%, the mortality of newborns decreased to 20% and the rate of stillbirths — to 25%.

### III

The prophylactic and continuous medical care of children begins from the first moment of their life at maternity hospitals and is continued later at children's health centres (polyclinics).

The work of these centres, as well as the work of other out-patient and polyclinical institutions is organized according to territory sections with a system of paediatricians. To each section a physician and patronaging nurses are attached (1.5 appointments).

The children's health centre (polyclinic) is a unified and guiding methodical centre in comparison with other institutions that have the care of children, for instance: obstetric-gynecological institutions, children's creches, children gardens, schools, factories of dairy products, children and infant's homes.

The polyclinical department (the children's health centres polyclinics) renders therapeutic and prophylactic service, carries out active and systematic observation of the physical development and the health conditions of the pre-school and school children, organizes summer sanitation measures, and gives medical service to all children communities, creches, kindergartens and schools which are situated in the section of its activity.

Special attention is paid to the proper care and rational feeding of infants. Many children's health centres have special milk kitchens or factories of dairy products, where under the direction of skilled medical workers different medicinal and nourishing mixtures are prepared.

The sectional physician organizes the active patronaging of infants under one year of age, the systematical observation of children under 3 years of age and of elderly children in his section if necessary. The patronaging is carried out by a special nurse under the direction of a physician.

During the first year of life the infant is under the unremitting care of physicians and nurses. It receives all necessary prophylactic inoculations, beginning with BCG vaccination against tuberculosis, at the maternity hospital.

The first step of active patronaging is the patronaging of the future mothers, i. e. antepartum patronaging, which is carried out in order to create favourable conditions of life for the infant before its birth, teaching the future mothers the rules of

hygiene and care of the newborn, feeding and securing the necessary social-juridical aid, and so on).

The second step of active patronaging is the patronaging of the newborn by the physician and nurse during the first days after leaving the maternity hospital. For this purpose the maternity hospital send a notice (the exchange card) of the newborn to the district children's health centre.

The patronaging nurse teaches the mother how to take care of the infant and the care of her nipples, and the regimen of feeding. She also controls the fulfillment of the prescriptions made by the physician.

Further systematical observation of the physical and neuropsychical development of infants is carried out till they are 3 years of age.

Extensive sanitary-enlightenment work which was begun in the women's health centre and continued in the maternity hospital and in the children's health centre helps the young mother to give the infant the proper care and in its rational feeding.

The special forms of sanitary-enlightenment are the so called „maternity schools“ which are organized by the women and children's health centres; at these schools are carried out planned systematical studies on the general problems of women's hygiene, or the hygiene of pregnancy, postpartum period, on the care of the newborn, on the problems of lawful privileges for mothers and infants, etc.

During the first year of the newborn's life the physician examines it not less than 8—10 times; at the age of 1—3 years once in three months, and at the age of 3—7 years once a year.

During the first month of the infant's life the nurse must visit the child's home not less than 2 times; further the visits of the patronaging nurse are paid once a week.

All weak infants (premature infants, twins, infants receiving artificial and early mixed feeding, infants suffering from rachitis, rheumatic fever, hypotrophy, chronic-tonsillitis, tuberculosis, and infants, who had previously suffered from intestinal diseases) are under the special observation of the physician (under dispensary observation).

At home, as a rule, the physician attends to all infants running a temperature, with suspected infectious diseases, infants, that were in contact with contagious patients, all infants with somatic diseases, as well as infants discharged from hospitals.

The sectional physicians visit the infants at home on the day of a call and later on without being called until its recovery or hospitalization.

One of the most important factors for the improvement of medical aid is the succession of observations of the infant after its discharge from the hospital.

All infants and children who had infectious diseases and were discharged from the hospital for home treatment are under the special observation of the district physician: he carries out all necessary examination and treatment according to existing indications.

On the day of discharge from hospital the information this infant is directed to the district polyclinic.

Great attention is paid to the medical service of school children: all children before entering school are subjected to thorough medical examination which is carried out by school physicians, phthisiatrists, dermatologists, ophthalmologists, and physicians of various specialities. The decision on the conditions of the child's health is transferred to the school physician who is a member of the teacher's council of the school and guides the prophylactic measures at school, as well as teaches hygiene to school children.

School physicians and nurses look after the children's health every day, organize sanitary activists among the school children, guide the work of the school sanitary organizations, and carry out sanitary-educational work.

All data on the systematical observations are noted on a special card of the child's development; all data on prophylactic inoculations are noted on the card of prophylactic inoculations.

In order to control the systematical observation all children who are under dispensary observation a special dispensary observation card is filled.

The hospital regimen is organized according to the physiological teachings of I. P. Pavlov together with the use of the latest therapeutical methods.

#### IV

In order to create favourable conditions for working women for their free creative work and for the organization of the normal care of children, as has been already mentioned, there is a network of children's creches and kindergartens in the Republic.

A children's creche the infants receive the proper care, upbringing, and medical service they need.

All infants under three years of age are admitted to children's creches. There are usually four groups in the creches: A group of breast-feeding infants (under 9 months), crawling infants (from 9 months to 14 months of age), a middle aged group

(for infants from 14 months to 2 years of age), and the elder group (from 2 to 3 years of age).

According to time, during which infants are staying in the creches, these are divided into diurnal ones, where infants staying 9-10 hours, or 12-14 hours (in creches with a lengthened working day); and all week round creches where infants during the whole working week.

The next institution after the creches is kindergarten where the children of preschool age (from 3 to 7 years of age).

For the past years a new type of children's institution has begun to develop in the Republic—a combined children's creches and garden together.

Both in children's creches and in kindergartens systematic observation is carried out on the physical and neuro-psychical development of children. In connection with this as well as with the age of a child a corresponding regimen of the day is established.

The regimen of the day for each age group consists of the time for sleep and play the number of meals regularity.

#### V

Summer sanitation measures age of great importance for a healthy generation. Apart from the 36 children's sanatoriums, situated in all regions of the Republic in very beautiful and picturesque localities, there are more than 300 pioneer camps, 50 camps for young hikers and a great deal of children's playgrounds. In these institutions more than 400 thousand children of the school age rest and improve their health during their summer vacation every year.

Great attention is paid to construction of children's institutions by the organs of public education public health, as well as by industrial enterprises, sovkhozes and kolkhozes of the Republic.

#### VI

For the children of single mothers who are temporarily unable to support their children, and for orphan children special institutions—children's homes are organized in the Republic. These children homes are maintained by the State.

Women placing their infants at children's homes have the right to take it back if their conditions improve. These institutions are intended for the upbringing of very young infants (from birth to 3 years of age).

In such children's homes the infants are also divided into several groups. The educational work is organized by the teacher and the medical service -- by a physician.

#### VII

The protection of women and children's health is closely connected with the organization of social-judicial aid. For this purpose at the women and children's health centres and at children's homes a special social-judicial rooms are organized.

These social-judicial rooms are under the guidance of a special persons who usually have a law education.

The social-legal rooms have the following tasks:

to give to the mothers timely legal aid, connected with the receiving of alimony, state gratuities for several children, pension, etc.;

to guard the working rights of the pregnant women and mothers the fulfillment of the laws about employing them allowing special hours for infant breast-feeding, to be transferred to more easy work, etc.);

to participate in all measures of the women's health centre directed at the improvement of the living conditions of mothers and infants (placing the infants into the children's institutions, giving temporary material help, the improvement of housing conditions) and so on.

The continuous improvement of the material well-being and the culture of the working class, the extensive prophylactic measures conducted among children the rational feeding and medical care of them, early diagnosis and well timed hospitalization of sick children, the use of the most effective methods of treatment, the wide sanitary-enlightenment work among mothers, the participation of the population in the protection of children's health brought about a sharp decline in children's morbidity and mortality, especially from such diseases as: tuberculosis, toxic dyspepsia, dysentery, leishmaniasis, pneumonia, which carried away many thousands of children's lives in prerevolutionary Uzbekistan.

For the past 5 years children's morbidity has greatly diminished: for children with toxic dyspepsia by 1,6 times; with dysentery -- by 2,5 times; with diphtheria -- by 3 times, etc.

The staff of the Institute has published 28 articles on methods for the medical personnel of medical-prophylactic institutions and for the population. The qualified specialists of the Institute have consulted about 200 sick children.

The Institute has called a conference for physicians-pediatricists working in Tbilisi and 2 seminars for trained nurses.

Editor Professor I. Pagava.

MINISTERE DE LA SANTE DE L' U. R. S. S.  
MINISTERE DE LA SANTE DE LA R. S. S. DE GEORGIE

Documentation pour le seminaire organisé  
par l'organisation mondiale de la santé.

L'INSTITUT DE PÉDIATRIE DU MINISTERE DE LA  
SANTÉ DE LA R. S. S. DE GÉORGIE.

(Aperçu)

TBILISSI  
1960

There were no research institutions in Georgia to study problems of pediatrics before the Soviet power was established. It goes without saying that it was next to impossible to carry out systematic research work under such conditions.

Specialists in pediatrics, Georgians in nationality, were first graduated from the Medical Faculty of the Tbilisi State University. The children's clinic at the University laid the foundation of the Research Institute of Child and Juvenile Health Protection in 1949. The Institute carried out research, practical work and work in methods up to 1935.

From 1935 to 1959 this work was carried out by the Research Institute of Infant-Maternity Protection.

The activities of this Institute during 25 years of its existence proved most useful especially the activities of the Children's Clinic (directed by Honoured Scientist Prof. P. V. Naneishvili).

Since 1935 up to 1940 the research personnel of the Institute published series of monographic works on dysentery, pneumonia, cholecystopathy in children and rheumatism, as well as a collection of scientific works on dysentery and pneumonia. Together with the Doctors' Advanced Training Institute, the Research Institute of Infant-Maternity Protection trained a great number of researchers and qualified specialists in pediatrics. The Institute directed the work of children's medical-prophylactic establishments which ensured better medical observation of and aid to the infantile and juvenile population of the republic.

During the last 10 years child mortality from scarlet fever, measles and diphtheria sharply fell. It fell by two or more times in cases of pneumonia, dysentery and toxic dyspepsia.

The development of the network of children's medical-prophylactic institutions and the increase of the number of specialists made it an urgent necessity to create anorgani-

zing research centre of pediatric service. According to the decision of the Republic's governmental bodies a Research Institute for Pediatrics was opened in December, 1959.

The principal task of the Research Institute for Pediatrics is to direct research in pediatrics and in this way to reduce the sick-and death rate of children, and at the same time to improve medical-prophylactic service.

Another important task of the Institute is to give practical and systematic help to medical-prophylactic institutions of the Republic, to district pediatric and physicians.

The Institute works on the basis of the Republic's Clinical Hospital which has infantile and juvenile clinical sections and a dispensary section.

The Research Institute of Pediatrics has 12 departments: 1. The organizing and methods department; 2. The department of normal and pathological physiology; 3. The department of physiology and pathology of the new-born child; 4. The department of physiology, hygiene and upbringing of babies; 5. The department of school hygiene; 6. The department of prophylaxis and therapeutics of babies; 6. The department of prophylaxis and therapeutics of juveniles; 8. The department of children's nourishment; 9. The department of children's infectious diseases; 10. The department of children's surgery; 11. The department of children's neurology; 12. The clinical-diagnostic department.

The staff of the Institute also have at their disposal an X-ray room, a physiotherapeutic room, a blood transfusion room, biochemical laboratory and a laboratory of functional diagnostics.

There are 62 people working at the Institute. Among them one has a Doctor's degree, 15 have a Master's degree. 26 researchers have no scientific degree.

At present the Institute works according to a three-year plan for solving some urgent scientific problems. The main problems are: "The Age Peculiarities of a Child's Organism in the Normal and Pathological State", "Infantile Health Protection".

In accordance with these problems, the scientific personnel of the Institute works at the following themes: children's rheumatism, diseases of the respiratory organs, rachitis, infections

of the alimentary canal (dysentery, colidyspepsia and so on) larval diseases and questions of immuno-hematology, physiology and pathology of a new-born child, physiology and hygiene of babies, their nourishment, school hygiene and polytechnical teaching, surgical diseases of children, residual phenomena after poliomyelitis, specific features of metabolism and humoral regulation in children, health protection of children of all ages.

With the aim of giving help to the republic's institutions of health protection the institute carries out work in organization and methods in three main directions:

1. Practical help and suggestions as to methods by the scientific workers of the Institute to local medical and prophylactic institutions;

2. Convening conferences of physicians-pediatricists and medium medical personnel and arranging seminars for them; giving lectures and making reports for physicians and nurses, publishing articles on methods of medical-sanitary work with children; organizing specialization courses for young pediatricists;

3. Analysis of data provided by children's medical-prophylactic institutions (of the whole republic, of separate regions and towns); systematic analyses of child mortality by studying the records of diseases in hospitals and in homes; analysis of the work of day nurseries in towns and in the country; analysis of the work of children's homes, kindergartens and boarding schools; analysis of summer sanitation measures; analysis of the materials on mortality of new-born children.

The above mentioned measures are taken to reveal weak points in the work of medical-prophylactic institutions of the Republic and to improve it; to reduce child mortality, especially in cases of pneumonia, dysentery, diphtheria.

For the purpose of giving methodical help to children's medical-prophylactic institutions the Institute has sent 24 specialists to them (9 of these to rural regions) since the day of its foundation. The Institute has studied the work of 54 children's medical-prophylactic institutions. 29 pediatricists and 60 nurses have taken part in seminars organized by the Institute. 8 physicians-pediatricists have been working at the Institute's laboratories for a certain period.

рии. Лечение и медикаментозная профилактика малярии осуществлялись в основном работниками общемедицинской сети и частично работниками противомалярийной организации.

Очень важное значение имело выделение колхозам для постоянной работы общественных акрихинизаторов.

Выявление больных малярией обеспечивается всеми лечебно-профилактическими и санитарно-противоэпидемическими учреждениями республики путем исследования крови у лиц с повышенной температурой.

По республике в 1956 году было зарегистрировано 780 больных малярией, в 1957 — 293, в 1958 — 166, в 1959 г. — 45. За первое полугодие 1960 года в республике не зарегистрировано ни одного свежего заражения малярией.

Эти сведения с достаточной ясностью указывают, что задача полной ликвидации малярии в Узбекистане уже решена, и отражают результаты проведенных широких противомалярийных профилактических мероприятий, утверждаемых ежегодно Советом Министров республики.

Рост благосостояния и культуры населения республики, широкие профилактические мероприятия, массовая физическая культура, квалифицированная медицинская помощь, применение новейших методов лечения и предупреждения болезней обеспечили подъем санитарного состояния населения и сыграли исключительную роль в снижении заболеваемости и смертности населения.

В республике совершенно ликвидированы чума, рикшта, холера, натуральная оспа. Сведены до уровня спорадических такие, прежде широко распространенные заболевания, как малярия, лейшманиоз, сыпной тиф, возвратный тиф. Значительно снижена заболеваемость населения туберкулезом, кожными, венерическими и другими болезнями.

По сравнению с дореволюционным периодом в республике общая смертность населения снижена в 5 раз, более чем в 2 раза увеличилась средняя продолжительность жизни трудящихся.

Показатель общей смертности, по сравнению с 1940 годом, снизился в 2,1 раза и составил в 1959 году 6,1 на 1000 населения. Показатель рождаемости за этот же период возрос с 33,9 до 37,0. Это обеспечило увеличение показателя естественного прироста населения почти в 1,5 раза — с 20,6 до 30,9 на 1000 жителей.

### Organization of the Public Health in Uzbekistan

(Information Bulletin).

The Uzbek Soviet Socialist Republic, included in the Union of the Soviet Socialist Republics, was formed after the national delimitation in 1924. In the present boundaries the territory of the UzSSR is equal to 409, 4 thousands kilometres; with a population amounting to 8 105 700 people.

According to the administrative division the Uzbek Soviet Socialist Republic consists of the Kara-Kalpak Autonomic Republic, one town of republican importance (Tashkent) and seven regions (Andijan, Bouchara, Samarkand, Surchan-Daria, Tashkent, Fergana and Choresm regions).

In Uzbekistan, as in the whole Soviet Union, public health is a matter of national importance.

The central leading organ of public health is the Ministry of Public Health of the UzSSR under the leadership of the Minister and his assistants. The Minister of public health is at the same time a member of the Council of Ministers of the Republic.

For the settling of especially important questions there is a consultative organ—a special board, consisting of the Minister of Public Health and his assistants, the heads of separate departments of the Ministry, organizers of public health and scientists. The members of the Board are approved by the Government of the Republic.

The Minister of Public Health of the UzSSR has three assistant ministers:

1. An assistant minister dealing with all sanitary-epidemiological problems.
2. An assistant minister dealing with the therapeutic and prophylactic aid for the adult population, mothers and children.
3. An assistant minister, dealing with the medical personnel and educational institutions.

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All operative work in the Republic directing the work of the public health service is carried out by different departments of the Ministry.

The Ministry of Public Health of the UzSSR consists of:

1. A sanitary-anti-epidemiological department with republican sanitary-epidemiological stations and republican House of sanitary enlightenment.
2. The chief State sanitary inspection.
3. A department of therapeutic and prophylactic service for adults.
4. A department of therapeutic and prophylactic service for women and children.
5. A department of medical personnel and educational institutions.
6. A pharmaceutical department.
7. A department of health resorts.
8. A department of chief specialists.
9. A Scientific Medical Council.
10. A planning and economical department.
11. A central book-keeping department.
12. A statistical department with a scientific-methodical Bureau.
13. A construction department with a projection department (estimation-technical bureau).
14. A department of medical supply.
15. The State medical scientific Library.
16. The State medical Publishing House with a printing house.
17. The republican station of sanitary aviation.

In order to organize special medical aid for the population and to fulfill the control of their work there are republican specialized scientific-research institutes and dispensaries, the work of which is guided by the Ministry of Public Health.

The department of chief specialists has the following specialists on its staff: chief therapists, a chief surgeon, a chief obstetrician-gynecologist, a chief pediatrician and a chief epidemiologist. Beside there are supernumeraries (not on the staff) specialists: on roentgenology, cancer, skin and venereal diseases, phthisiatry, and stomatology.

The chief specialists work under the direct leadership of the corresponding assistant Ministers.

The chief specialists make scientific analyses of the quantity and quality indices of the work of all therapeutic and prophylactic institutions and of the efficiency of the methods of treatment used they also organize refresher courses of the medical personnel and, their rational use, etc.

The Scientific Medical Council plans, coordinates, and controls the scientific work of all Scientific-Research Institutes, high and secondary medical schools, as well as all the therapeutic and prophylactic enterprises of the Republic.

## II

In order to work out the newest and most useful methods of organizing the therapeutic and prophylactic work in the Republic the following 10 scientific research institutes were established: an Institute of vaccines and serums; a sanitary-hygienic institute; an institute of tuberculosis; dermatovenereological institute; an institute for cancer research, roentgenology and radiology; an institute of malaria and medical parasitology; an institute of orthopedy and traumatology; an institute of physiotherapy and health resorts studies; an institute of blood transfusion and an institute of regional pathology. In the year 1959 some departments were organized for the institute of regional medicine in Golodnaya steppe and for the institute of tuberculosis — in the Andijan region.

The training of medical personnel in the UzSSR is carried out at five high schools.

1. The Tashkent State Medical Institute.
2. The Samarkand State Medical Institute.
3. The Andijan State Medical Institute.
4. The Tashkent State pharmaceutical Institute.
5. The Tashkent State Institute of Refresher Courses for Physicians.

The training of the junior medical personnel is carried out at 12 medical schools, which were created founded in all the regions.

In the Kara-Kalpak Autonomous Republic the public health service is under the guidance of its Ministry of Public Health. In Tashkent it is under the guidance of the city public health department; in separate regions—under the guidance of regional public health departments, which are at the same time departments of Executive Committees of the Soviet of Working people's Deputies.

The Ministry of Public Health of the Kara-Kalpak Autonomous republic and all regional public health departments have a double subordination: they subordinate to the regional executive committees of the Soviet of Working People's Deputies and to the Ministry of Public Health of Uzbekistan. The regional public health departments (in the Kara-Kalpak Autonomous Republic—the Ministry of Public Health) guide the urban and

district public health enterprises and separate enterprises, of regional subordination.

The regional public health department has one manager (chief) and two deputy managers, five chief specialists in the staff and 5-7 specialists not on the staff; it consists of a therapeutic department, a department of chief specialists, an office, a planning and economical department, a book-keeping department, a department of medical personnel, a statistical department with an organization-methodical room. Under the direct subordination of the regional public health department are the following regional institutions: the regional sanitary-epidemiological station together with the regional House for sanitary-enlightenment, the regional unified hospital, regional specialized dispensaries, regional pharmaceutical department, and regional base of medical supply.

The regional hospital is the leading scientific-methodical and consulting centre of the regional public health department. It has a sanitary aviation and a blood transfusion stations.

The medical-sanitary council is a consulting organ of the regional public health department; this council consists of the deputy managers of the regional public health department, regional specialists, the most skilled leaders and practical workers of therapeutic and prophylactic, and sanitary-epidemiological enterprises, that work under the direct guidance of the chief of the regional public health department.

Besides the enterprises, belonging to the Ministry of Public Health system, there are some therapeutic and sanitary institutions in the Republic, belonging to the railroad and civil air line departments.

### III.

Up to the recent time the leadership of all rural medical institutions was accomplished by the district public health departments, which were also the departments of the district executive committees of the Soviet of Working People's Deputies and consisted of the chief of the district department and a book-keeper. At the present time the rural public health system in all regions of the Republic has been reorganized and all functions of the district public health department are controlled by the district hospital, the chief of which is at the same time the chief physician of the district.

The chief district physician guides the work of all medical sanitary stations and points of the district. He has three deputy physicians: on therapeutic and prophylactic work; on sanitary and anti-epidemic work and on administrative-economical matters.

The physician-specialist of the district hospital is at the same time the district specialist: he controls and guides the work of rural district hospitals, maternity hospitals, children's creches and feldscher-obstetrical centres.

Thanks to this reorganization therapeutic and prophylactic, sanitary and anti-epidemic work is carried out by all public health institutions in one complex, more systematically, and more organized. This system is more effective.

### IV.

The population of the Republic is provided with highly qualified medical service free of charge.

The soviet public health of the Republic is a socialist system of State and public measures for the prophylaxis and treatment of diseases, providing healthy conditions for labour and life, great capacity for work, and longevity of life.

The spontaneous activity of the population is an integral part of the Soviet system of public health protection, therefore the workers of our country actively participate in all sanitation measures.

The forms of organization and methods of work of the public health members in the community are very diverse.

Attached to all regional, urban, and district Soviets of Working People's Deputies there are permanent public health committees, consisting of Soviet deputies and active medical and other workers. These Committees are approved by the session of the Soviet of Working People's Deputies and must give a full account of their work to this session. These committees are responsible for helping public health organs and institutions and for the controlling their work.

There is in the Republic a mass organization—the voluntary Red Crescent Society. At a conference the Central Committee of the Society, presidium and the members of the plenum are elected.

In different regions regional committees, and in districts—district committees of the Red Crescent Society are elected. This voluntary Society carries out great work improving the sanitary education of the population by means of training people for the GSO badges (ready for sanitary defence). The "ready for sanitary defence" Society renders medical and financial aid in cases of elemental calamities; it also helps all medical institutions in the carrying out all mass work, organizes sanitary posts and sanitary brigades at industrial enterprises, in kolkhozes and sovkhoses.

A great role in the public health service belongs to the trade-unions.

The trade-unions, taking an active part in the industrial life of the enterprises and institutions, look after the members of trade-union at work and at home.

The members of trade-unions elect the republican, regional, and district trade-union committees, which have a presidium and members of the plenum. Local committees, consisting of several men, are elected. At general meetings of enterprises factory-and-work committees are elected, at factories and in the schools the trade-union committees (profkoms).

Social insurance councils and insurance delegates of factory-and-work and local committees are the managers of insurance sums and spend them for the maintenance of children's sanitation institutions, for the payment of gratuity in cases of disability according to the existing laws; they give free passes to sanatoriums and rest-homes, help to improve the medical service of workers and their families; control the regimen, prescribed to patients by physicians, take an active part in the formulation of collective agreements etc.

Active trade-union members participate in the council of assistance, organized at therapeutic institutions, in guardianship councils, attached to children's institutions. Active members of the population, after receiving preliminary training, are elected as sanitary representatives. They organize sanitary centers.

In kolkhozes sanitary representatives are elected from specially trained kolkhozniks (members of the kolkhoz); from these kolkhozniks the sanitary centers are also organized.

The active members of population are leading the mass people movement for the best sanitary conditions not only in the residential areas, but for the whole region as well.

#### Therapeutic and prophylactic aid to the population of Uzbekistan

Before the Great October Socialist Revolution there were only 65 out-patient departments, 64 hospitals with 976 beds and 33 pharmacies on the territory of present Uzbekistan; all these institutions had only 102 physicians, 39 dentists, 80 pharmacists, and 234 junior medical personnel.

Institutions for the prophylaxis of diseases and the training of medical personnel did not exist at all. The budget for public health was equal to 562.1 thousand rubles; for one person not more than 14 kopecks was spent.

For the first 8 years of the existence of the Uzbek SSR, i. e. from 1924 to 1932, the number of hospitals increased by 3 times and the number of beds by 3.8 times. By that time 1561 physi-

cians, 176 dentists, 433 pharmacists and 2976 junior medical personnel were already working in the Republic.

Towards the end of 1959 the number of physicians increased to 9585, dentists--to 621, pharmacists--to 2089, and junior medical personnel--to 32 971.

For each 10 thousand of the population in 1913 there were only 0.3 physicians, in 1940--4, and in 1959--12 physicians.

In 1959 from higher medical schools in Uzbekistan 1653 physicians and pharmacists graduated. At the Institute for refresher training during the same year more than 1000 physicians were trained and received specialization. In 1959 3976 junior medical workers finished secondary medical schools.

Besides this institute the work on the specialization and refresher training of medical workers is carried out at all scientific--research institutes, regional hospitals, dispensaries, and sanitary-epidemiological stations.

Great attention in the Republic is paid to the training of personnel from local nationalities. More than 50% of students in higher and secondary medical schools are Uzbeks. Besides the great number of practical physicians from local nationalities in medical and scientific-research institutes 188 doctorates and candidates of medical science Uzbek men and women--are working now, whereas in 1913 there were no Uzbek physicians in the republic.

The public health budget of the Republic for 1959 is equal to 1 milliard 261.6 million rubles, i. e. more than 150 rubles per person.

The budget for 1960 is planned 1 milliard 488 million rubles.

Therapeutic and prophylactic service of the population is rendered in republican, regional, urban, district, and sectional hospitals, in specialized hospitals (stationary), polyclinics and out-patient departments, dispensaries of different specialties, medical-sanitary points and medical stations at industrial enterprises, children and women's centres, maternity hospitals, feldscher and feldscher-obstetrical centres.

Urgent first aid is carried out by special ambulance stations for accidents, as well as by the reception departments of hospitals and by the physicians on duty in polyclinics.

Urgent medical aid to the population of distant districts is carried out by medical institutions of those areas and by republican and regional sanitary aviation stations, which also give planned consulting aid to the physicians, working in distant districts.

Medical service at home is based on the principle of sections carried out by the therapists, pediatricians, obstetrician-

gynecologists and phthisiatrists of territorial (district) medical institutions.

In comparison with 1913 the number of hospital beds in the Republic was increased in 1940 by nearly 20 times, and in 1959 by 52.5 times.

More intensively is the number of delivery-beds (number of beds in maternity hospitals) increasing. In comparison with 1913 the amount of delivery-beds in 1940 increased by 36 times, and in 1960 nearly by 100 times.

Stationary (hospital) medical aid is continuously developing in the cities and in the villages of the Republic.

During the years after the Second World War the amount of beds in cities increased by 2 times, and in rural areas more than by 2.5 times.

By the first of January 1960 885 therapeutic hospitals with 51 250 beds had been working in the Republic, 562 of which with 15 340 beds are situated in rural areas. In 1960 an increase of 20 000 hospital beds is foreseen.

As for the medical service of women and children there is a wide network of therapeutic and prophylactic institutions in the Republic, which did not exist in the prerevolutionary times. They are: maternity hospitals, women and children's health centres, milk kitchens, children's creches and children's gardens, children homes, sanatoriums, pioneer camps, etc.

The principal task of the public health organs is the rapid eradication of tuberculosis, trachoma, skin and venereal diseases and some infectious diseases.

For this purpose a wide network of specialized institutions has been created in the Republic; there were none during the prerevolutionary period; for instance dermatovenerological, antituberculous, for cancer control, psychoneurological, for the eradication of trachoma, for the control of intestinal diseases, and many other dispensaries and room; specialized hospitals and sanatoriums and scientific research institutes, dealing with various problems. All the medical institutions of the Republic, take part in the work of doing away with these diseases.

The dispensary method of work of the specialized institutions makes it possible to keep the patients under constant medical observation, rendering them skilled medical aid organizing wide prophylactic measures and sanitary-educational work. All women and children's health centres also work according to dispensary methods.

Dispensary methods of work are now also more widely used in the general network of therapeutic and prophylactic institutions. District physicians take under dispensary observation all patients with cardiovascular diseases, diseases of kidneys, liver

and blood, patients, with hypertension, rheumatic fever, peptic ulcer of the stomach and duodenum, dysentery and all other long-lasting diseases.

Therapeutic and prophylactic institutions of the out-patient type render to the population mass specialized aid which increases from year to year thanks to the continuous development of the network of these institutions, the increase of the number of physicians and junior medical personnel, as well as to conscientiousness of the population.

The number of out-patient service for the last seven years has increased by 35%. The number of hospitalized patients for the same period of time increased by 70%.

Special attention is paid to the medical service of workers and employees of industrial enterprises and their families.

The majority of the workers and employees receive all medical service at their territorial (district) medical institutions.

In order to carry out all prophylactic measures, the systematic control of workers' health and to render them first aid the district polyclinics have their own sections at industrial enterprises—medical stations and feldscher centres. The workers and employees of large industrial enterprises are served by a special network—of medical-sanitary stations.

The medical sanitary stations represent a complex of therapeutic and prophylactic institutions, consisting of a unified hospital, (i. e. a stationary hospital and polyclinic with all specialized physician rooms), a maternity hospital with a women's health centre, a children's department with a children's health centre, a sanitary-epidemiologic station, children's creches, a milk kitchen, and a network of medical stations.

The medical institutions of the industrial enterprises of the Republic began to develop the first years after the Republic's delimitation. In 1928 there were 12 medical stations. By the end of 1959 there were 34 medical-sanitary stations and at small enterprises 276 medical and 450 feldscher's centres were already functioning.

Apart from the network of institutions of the Ministry of Public Health at all industrial enterprises the factory administration and trade-union organizations set up prophylactic institutions such as; sanatoriums, prophylactories, dietetic dining rooms, personal hygiene rooms for women, rooms for nursing women, etc.

Special attention is paid to problems of sanatorium and spa treatment of the population.

Up to 1924 there were no sanatoriums or health resorts on the territory of Uzbekistan. Wonderful climatic localities, cu-

rative muds and mineral waters of the Republic made it possible to found large health resorts for adults as well as for children. All the work of sanatoriums and health resorts is under the supervision of the Sanatorium and Health Resort Department of the Ministry of Public Health UzSSR.

The Institute of Health resorts (kurortology) and physiotherapy N. A. Semashko carries out all work connected with the investigation and study of the natural resources of Uzbekistan and works out the effective methods for their use.

At the present time on the territory of Uzbekistan only under the supervision of the Ministry of Public Health there are 43 sanatoriums working all year round and 6 seasonal ones with 9245 beds as well as 9 rest-homes. There are also sanatoriums and rest-homes as well as pioneer camps, which are under the supervision of trade-unions of other ministries. Many kolkhozes also spend money for building kolkhoz and enter-kolkhoz tuberculous sanatoriums, rest-homes, and pioneer camps.

#### Pharmaceutical service

Before 1917 on the territory of Uzbekistan there were only 33 pharmacies in which 80 pharmacutists worked. During the past years the pharmaceutical service of Uzbekistan has developed into the powerful organization.

At the present time there are pharmacies in all the towns, district centres and large residential areas, in sovkhoses, industrial enterprises, mines, etc.

On the territory of Uzbekistan a chemical-pharmaceutical factory, 364 pharmacies (147 in towns and 217 in villages), 2348 pharmaceutical centres, 22 pharmaceutical shops, 82 stalls and 105 kiosks are now functioning. Besides that there are pharmacies of the closed type in different hospitals, dispensaries, sanatoriums, and other therapeutical institutions.

The pharmaceutical work of the Republic is guided by the Chief Pharmaceutical Department of the Ministry of Health of UzSSR, which has special departments in the regions, so called regional pharmaceutical departments at the regional public health departments.

These pharmaceutical departments, both chief and regional, are supplying the therapeutic and prophylactic, as well as the sanitary-epidemiological institutions with clinical laboratories, modern medical equipment (roentgen apparatus, physiotherapeutic and fluorographic apparatus) as well as with medicinal instruments and medicaments.

At the present time in the system of the Chief Pharmaceutical Department, including the chemical-pharmaceutical factory,

more than 3000 persons are working, of whom 2099 are pharmacutists (823 pharmacutists and 1276 assistant pharmacutists). More than 35% of the pharmaceutical personnel are Uzbeks.

The training of pharmaceutical personnel is received at the Pharmaceutical Institute and pharmaceutical faculties at secondary medical schools in Tashkent.

#### Sanitary and anti-epidemic organization

In prerevolutionary times on the territory of Uzbekistan sanitary-epidemiological institutions did not exist.

Taking into consideration the unsatisfactory conditions of the republic in connection with infectious and tropical diseases the organization of a special network of the sanitary and anti-epidemic institutions was set up in the Republic beginning with 1918.

The diversity of forms of the sanitary and anti-epidemic service in Uzbekistan is quite characteristic. They were changed and reorganized in connection with the tasks of the public health organs at each phase of its development.

In due course great attention was paid to the control of malaria and a wide network of anti-malarial stations and centres was organized in the Republic.

Later on the anti-malarial stations began to carry out work on the control of other tropical diseases: leishmanioses, dracunculosis, recurrent fever, amoebal dysentery, etc.; in connection with this work all stations were renamed as tropical stations.

Parallely with the development of these stations a network of sanitary-epidemiological, disinfection stations, anti-brucellosis centres, sanitary bacteriological laboratories began to develop and improve.

In connection with the total eradication of some diseases, such as: dracunculosis, amoebic dysentery, and with the partial eradication (as mass diseases) of malaria and other tropical diseases, the amount of work of the tropical stations has greatly diminished; it made it possible to reorganize them into parasitological departments of the sanitary-epidemiological stations.

Many other sanitary institutions were also greatly reorganized.

At the present time all sanitary and anti-epidemic work in the Republic is carried out by a wide network of independent sanitary-epidemiological stations and sanitary-epidemiological departments of district hospitals. Independent sanitary-epidemiological stations have the following departments.

1. A sanitary department, dealing with preventive and current control in the field of industrial, municipal, food, and school hygiene and with an organization of sanitary propaganda.

2. An epidemiological department, dealing with the organization of prophylactic inoculations and anti-epidemic measures.

3. A parasitological department dealing with the problems of the eradication of malaria, leishmaniasis, helminthoses, and with the problems of the control of insects, transmitting other diseases.

4. Bacteriological, protozoan, food, municipal and housing, and industrial laboratories.

5. A disinfection department.

6. An administrative-economical department.

There are the following epidemiological stations in the Republic: republican regional stations, situated in the regional centres (in the Kara-Kalpak Autonomous Republic there is a republican station), in each town there are urban stations and in rural areas there are sanitary-epidemiological departments of district hospitals, which with the help of therapeutic and prophylactic institutions carry out work on the improvement of sanitary conditions in residential areas.

All sanitary-epidemiological work in the Republic is headed by the Chief State Inspector with the sanitary-epidemiological department of the Ministry, and the epidemiological and sanitary departments.

The sanitary-epidemiological department of the Ministry of Public Health guides the work of the republican, Tashkent, and regional sanitary-epidemiological stations.

The regional sanitary-epidemiological stations are organization-methodical and consultative centres, guiding all the work of the urban sanitary-epidemiological stations, as well as the sanitary-epidemiological stations of the district hospitals of the given region.

The sanitary epidemiological stations and the departments of the district hospitals carry on protective and current sanitary control of building and operating industrial enterprises, schools, houses, municipal and food objects, study systematically the foci of infection, control the fulfillment of norms of sanitary laws and the accomplishment of prophylactic inoculations, guide all disinfection works, sanitary education, etc.

Sanitary education plays a great role in raising the sanitary culture of the population both at work and at home and helps to make the population actively participate in all sanitary work.

During the period from 1945 to 1959 the amount of the sanitary education houses in the republic increased from 5 to 22.

Sanitary education work in Uzbekistan is carried out by all physicians and junior medical personnel under the direction of specialists, working at sanitary-education houses and sanitary-epidemiological stations.

Scientific-research work in the field of sanitary and hygiene as well as in the field of the control of acute infectious diseases is carried out by the Scientific-research institute of Sanitary, Hygiene and Professional Pathology, by the scientific-research institute of malaria and medical parasitology, with one branch in the Golodnaya steppe, by the scientific-research institute of vaccines and serums, by the chairs of hygiene and epidemiology, as well as by the chairs of microbiology of the medical institutes.

The chief place in the regional pathology of Uzbekistan was occupied by the malaria rate, within 25 years (1925—1950) the amount of patients, suffering from malaria, varied within the limits of 200—700 thousands intensity indices for 1000 thousand of population equal from 300 to 1500.

The rate of malaria morbidity on the territory of pre-revolutionary Uzbekistan was not exactly known.

Concurrently with the distribution of tertiana there were periodically observed epidemics of tropical malaria, which were a national disaster.

The geographical position of Uzbekistan calls forth the necessity of artificial irrigation and irrigated agriculture by means of irrigation systems on the plain areas.

The defects in the construction of irrigation canals and in the system of water supply caused the formation of swampy territories which were favourable places for anopheles.

Because of the absence of hydro-works during the years of when river over flow which causing the formation of a great number of lakes and swamplands and sharply elevated the level of ground waters.

The climate of Uzbekistan provides good conditions for the life of different vectors of tertiana and tropical malaria. The temperature of water reservoirs makes it possible to rear 6—8 generations of vector during a season with the duration of the developmental cycle equal to 10—12 days in June—August.

The temperature of the air for 5 months helps the development of vectors of tertiana and tropical malaria, and in the period from June to August the duration of sporogony does not exceed 8—12 days.

The elimination of conditions, favourable for the high level of malaria epidemics and its epidemiological increase in pre-revolutionary Uzbekistan was impossible owing to the econo-

mic backwardness of this locality and the absence of medical service.

In connection with the wide distribution of malaria, especially the tropical forms, beginning from 1921 a network of specialized anti-malarial institutions were set up in the Republic. In 1924 in Bouchara a Scientific-research Institute of tropical malaria, was organized which was later transferred to Samarkand in 1931 and renamed into the Institute of malaria and medical parasitology.

Later on the malarial stations, mentioned above were renamed into stations of tropical medicine.

In 1940 there were already 73 tropical stations, 187 anti-malarial centres, 10 detachments and 60 brigades. From year to year this network increased and in 1950 there were 109 tropical stations, 454 malarial centres and 250 brigades.

Extensive work on the technical reconstruction of irrigation systems and the regulation of river flows and planned water supply greatly improved the sanitation of different localities and eradication of anophelogenous reservoirs. An example of the work conducted on hydro-meliorative works may serve the data of 1951—1957 in the Bouchara region.

In this region, which had very difficult and complex epidemiological conditions and occupied the first place in the level of the malaria morbidity rate, in 1956 of 2153 residential areas only in 11, 16 patients, suffering from malaria were registered and since 1957 no primary cases of malaria were registered.

From 1954 to 1957 in this region 8212 hectares of marshes and swamps were meliorated. 3475 hectares of the ameliorated land are now under agricultural crops. By means of the reconstruction and construction of the irrigation systems 5314 hectares were ameliorated; 1842 hectares are now irrigated by means of new systems and on 1056 hectares the water flow is regulated and irrigation is in good order.

The measures on the eradication of anopheline larvae in water reservoirs and in the buildings, where winged anopheles lived, were carried out by the workers of the antimalarial stations with the assistance of the population. Up to 1953 water reservoirs were treated, and beginning with 1953 all lodgings are now treated by DDT and hexachlorane.

Apart from the staff of medical workers the treatment of water reservoirs and lodgings is carried out by thousands of bonificators, who are sent by kolkhozes.

Great attention was paid to the treatment of water reservoirs by means of aeroplanes.

In the residential areas the total treatment of lodgings is car-

ried out during the period of two years after the last patient with malaria was registered.

The chief features in the control of infective agents were the diagnosis and treatment of all patients and carriers. Every year nearly one million of the population was examined (up to 15—20% of the population in the Republic).

All registered patients and carriers were treated by the methods, worked out in the Soviet Union, by means of soviet synthetic drugs—acrichine (atebrine), bigumal, and plasmozid.

All registered patients and carriers received a course of systematical and anti-relapse treatment: they were subjected to so called public chemioprophyllaxis, which has the aim to render harmless the gametocytes, which are present during the whole epidemiological season in the blood of patients just completing their systematical and anti-relapse treatment. Patients, suffering from malaria, are under the dispensary observation for 18 months.

Of great importance for the rapid eradication of the last reservoirs of the infective agent in malarial foci where the epidemiologic process was at a low level was the use of the Soviet synthetic drug-quinocid, by means of which malaria terciaria was treated without relapses. The treatment and the medical prophylaxis of malaria were carried out by the staff of the general medical institutions and partly by the workers of the anti-malarial organizations.

The appointment of public akrichinizers by kolkhozes for constant work was also of great importance.

The revealing of patients, suffering from malaria, is accomplished by all therapeutic and prophylactic institutions as well as by the sanitary anti-epidemic stations of the Republic by means of blood analyses of all individuals having fever.

In 1956 780 patients, suffering from malaria, were registered in the Republic; in 1957 there were 293, in 1953 —166, and in 1959 only 45. For the first 6 months of 1960 no new cases of malaria infection were registered.

Such data clearly show, that the task of the complete eradication of malaria in Uzbekistan has already been solved; these data reflect the results of the wide anti-malarial prophylactic measures carried out and sanctioned yearly by the Council of Ministers of the UzSSR.

The improvement of the living conditions and the culture of the population, the wide prophylactic measures, mass physical culture, skilled medical service, the use of the newest methods of treatment and the prevention of diseases ensured the improvement of the sanitary conditions of the population and played

an immense role in the diminishing of morbidity and mortality of the population.

Such diseases as plague, dracunculosis, cholera, and small-pox have been entirely eradicated in the Republic. Malaria, leishmanioses, typhus fever and recurrent fever, which formerly were widely distributed, are now appearing only sporadically. The number of tuberculosis, skin, venereal and other diseases has also been greatly reduced.

In comparison with the prerevolutionary period the general mortality in the Republic has diminished by 5 times; the average longevity of the population increased more than by 2 times.

In comparison with 1940 the index of general mortality diminished by 2,1 times and in 1959 it was equal to 6,1 for every 1000 persons. For the same period of time the index of the birth-rate increased from 33,9 to 37,0. This in its turn caused the increase of the index of natural accretion of the population nearly by 1,5 times—from 20,6 to 30,9 for every 1000 inhabitants of the Republic.



ren with 120 beds, 4 dispensaries and special dispensaries. Besides this, local organizations in rural districts and collective farms intend to build hospitals with accomodation for 6,100 patients.

The number of medical workers will grow considerably: in 1959 there were 12,419 physicians in Georgia, and in 1965 their number will reach 15,400. By the same time, the number of doctor's assistants and trained nurses will grow from 28,820 to 34,200.

There is every condition for the further progress of health protection in Georgia. With the support of the public taking into account all valuable experience, present and past making use of the achievements of world medical science, medical workers of Georgia are sure to achieve still greater successes in health protection in the Republic.

MINISTÈRE DE LA SANTÉ DE L U. R. S. S.  
MINISTÈRE DE LA SANTÉ DE LA R. S. S. de GEORGIE

Documentation pour le seminaire  
organisé par l'organisation mon-  
diale de la santé pour les medecins  
du proche et de l'extreme orient —  
d'Afrique et d'amerique latine

LA PROTECTION DE LA SANTÉ DES  
TRAVAILLEURS DANS LA R. S. S. DE  
GÉORGIE

TBILISSI  
1960

Health protection and medical science in the Soviet Union may justly be considered to have achieved great successes.

The Soviet Government considers public health protection to be one of its most important duties; accordingly, the Government devotes a great deal of attention to the improvement of public health and to providing highly qualified medical services to the population.

The basic principles of health protection in the U. S. S. R. are: its unified and planned character; free treatment, its accessibility to all citizens; a close alliance between medical practice and medical science; stress on prophylaxis; promoting public interest in matters of health protection. All work in health protection is carried out under direct state control.

Health protection is directed by the Ministry of Health of the U. S. S. R. which is responsible to the Council of Ministers of the U. S. S. R. Certain medical and sanitary institutions are subordinated to the Ministry of Defence, the Transport Ministry and the Home Ministry. This, however, does not violate the unified character of health protection, as the work is carried out on the same principles and controlled by the Ministry of Health.

In the republics and autonomous republics and regions of the country, all medical work is controlled by republican Ministries of Health and regional Departments of Health. Soviet legislation provides for their right to adopt independent decision on all local problems, these rights being the result of a consistently carried out national policy which has completely eliminated inequality of rights for various nations: every nation has the right to develop its own economy, culture and health protection as it deems necessary.

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Before the establishment of Soviet Power in Georgia, health protection was in a deplorable state. Medical aid was paid for and, consequently, accessible only to those who could afford it. The mass of the population resorted to the services of witch-doctors, quacks and illiterate midwives. The poverty of the population in Georgia, the lack of medical aid and any sanitary culture worth mentioning favoured epidemics of such diseases as the plague, cholera, small-pox, spotted typhus and typhoid fever.

These diseases annually carried off from 30 to 40 thousand lives. 30 per cent of the population suffered from malaria, which took a death-toll running into thousands. There was only one anti-malarial medical centre in Georgia which could not cope with such a great number of cases. 50 per cent of children died of gastric diseases. In 1913 there were in all 42 well equipped hospitals with accommodation for 2,084 patients, 12 dispensaries, 36 rural medical districts and 17 medical centres served by doctor's assistants. In the urban communities there was one physician to 7,400 of the population, while in rural communities the ratio was 1 to 63,000. Expenditures amounted to 35 copecks per head of the population. There were only 351 physicians, 448 trained nurses and 8 sanitary inspectors in the whole of Georgia. All the chemist's shops were privately owned, while in the high-land districts (Svaneti, Khevsureti and the Dusheti district) there were none at all.

The wealth of health-resorts lay idle. The five sanatoria which existed in those days were accessible only to the rich.

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The development of health protection and medical science in the Georgian S.S.R. is determined by the general plan of development of the Republic's national economy, which makes it possible to coordinate the requirements of health protection, industry and agriculture.

Health protection in the Georgian Republic, together with the autonomous republics of Ajaria, Abkhazia and Southern Ossetia is based on the same principles as throughout the Soviet Union.

The Ministry is headed by the Minister and his three Deputies. The Board of the Ministry consists of the Minister (President of the Board), his deputies and responsible officials of the Ministry. At its sessions the Board deals with questions pertaining to the practical administration of health protection.

The Ministry comprises the following principal departments and sections: the Medical and Prophylactic department with its sections: the Mother and Child Medical and Prophylactic department; the Finance department; the Statistic department; the Personnel department, etc.

The aim of the medical institutions of the Republic is not only to provide medical care in cases of sickness, but also to diminish the occurrence of sickness by improving the health and working conditions of the population, as well as by carrying out all-encompassing prophylactic measures.

The successes of socialist construction, the rise of the material well-being and the cultural level of the population have favoured the development of health protection. Georgia which in the recent past was a backward agrarian country has now become an industrial Soviet republic with a flourishing agriculture. Alongside with the development of national economy and culture, health protection has reached unprecedented heights. As compared to pre-revolutionary times, the death-rate and the occurrence of disease have greatly decreased. In connection with the drop in the general death-rate and child death-rate, mean longevity has risen. A number of diseases, namely the plague, cholera, small-pox and relapsing fever have been completely eliminated. Great successes have been achieved in combating malaria, which is no longer a mass disease. It would be difficult to overestimate the significance of this fact. Indeed, malaria had been a terrible scourge since time immemorial. Georgian history has preserved the names of villages entirely wiped out by malaria. The successes achieved in eliminating malaria are a result of measures consistently carried out throughout the country. One of these is draining which has been done on a tremendous scale.

In Kakheti alone, (in the Alazani valley) and in the Colchian lowland (Western Georgia) 50 thousand hectares of marshlands have been drained and the land is now converted into orchards and vineyards. Over 50 million roubles were expended on draining. Methods of combating Anopheles comprised spraying black oil over the marshes, breeding *Gambusia* which feeds on mosquito larvae, treating ponds and lakes with Paris green, D. D. T., hexachlorine and chinocide, a new compound.

Prophylaxis as one of the main principles of health protection in the Soviet Union. It is based on a scientific materialistic conception of the relation between the human organism and environment; it proceeds from the decisive role of social conditions in the preservation and improvement of health and the elimination of sources of disease. These basic principles determine the activities of all institutions of health protection (medical and prophylactic, sanitary and epidemiological centres).

The state budget of the Georgian S. S. R. annually increases allocations for health protection:

	1942	1943	1944	1945
Allocations in millions of roubles	199,292.0	282,006.0	657,490.0	755,600.0

Georgia now possesses a great number of well-equipped medical institutions medical and prophylactic, sanitary and epidemiological centres, 3,148 in all: 536 hospitals with accommodation for 23,282 patients; 165 maternity homes (including those in rural communities) with accommodation for 2,708 patients; 1039 out-patient clinics; 90 special dispensaries. In the towns there are 10 independent ambulance stations and 32 ambulance stations attached to various medical institutions.

During the last five years 11 new hospitals with accommodation for 1,953 have been opened, at a total cost of 42 million roubles. At present, over 30 buildings for medical and prophylactic institutions are under construction. The number of pharmacies has grown: there are now 456 separate pharmacies, 364

pharmacies attached to various medical institutions and 39 chemist's shops. They are staffed by qualified pharmacologists and druggists, graduates of the Tbilisi Medical Institute.

The Soviet Union holds the first place in the world as regards the number of medical workers at the service of the population. In this respect Georgia takes the lead of many Western countries: 12,319 physicians work at the medical institutions of the Republic; 7,283 of them are women. There is 1 physician to 328 people. In order to raise the professional qualifications of general practitioners and to facilitate their specialisation, many of them attend advanced courses and special courses at clinics. During the last 3 years, 1,704 physicians have specialized and 1,943 have been through advanced courses, among them 455 general practitioners from rural districts. In the latter specialisation is effected at district and urban medical and prophylactic institutions.

Besides attending special courses, doctors specialize by working as interns at clinics. Moreover, physicians are afforded the possibility to specialize when they are sent to medical institutions in other important centres of the Soviet Union, as well as abroad.

Great attention is devoted to training doctor's assistants, trained nurses and the like. At present there are 19 secondary medical schools in the Republic training doctor's assistants, sanitary doctor's assistants, midwives and trained nurses, nurses, medical laboratory assistants, dental mechanics, mechanics for X-ray rooms, etc. The total number of medical personnel of this qualification is 28,820. 8,965 of them work in rural districts. In Tbilisi there is a special advanced school for these medical workers.

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The fusion of hospitals and dispensaries which took place in 1947 was a significant step in the progress of Soviet health protection: the hospitals had previously been working without sufficient contact with dispensary districts. The above-mentioned fusion had a salutary effect on medical services, ensuring

better medical care of the population. It also helped to raise the professional skill of dispensary physicians, by enabling to work at the hospitals. Besides, every case should be observed at home, at the dispensary or in hospital. This measure improved medical service throughout the whole system of health protection, at maternity homes as well as at hospitals and special dispensaries. At present more than 550 joint medical and prophylactic institutions of this type are operating in urban and rural communities of the Republic.

At urban hospitals, dispensaries and special dispensaries medical service is organized on the most rational lines, namely on the dispensary district principle. The territory of towns and rural communities is subdivided into dispensary districts, each providing medical aid to approximately 4000 people. Every district doctor—the therapist, the surgeon, the pediatricist and the obstetrician-gynaecologist consults the inhabitants of the district, supervises sanitary conditions, working and living conditions in the district; he diagnoses primary stages of diseases, studies the causes of diseases and carries out prophylactic, sanitary and hygienic measures.

The dispensary method is one of the principal and most perfect methods of medical service. It helps to keep under observation all people in need of medical care, to diagnose disease in its initial stages and to improve the working and living conditions of those under observation. Early diagnoses help to begin treatment in time and to place under observation all persons who are in contact with a patient. The devoted work of medical personnel has done and is doing a great deal to improve the indices characterizing the activities of district medical institutions. Lethal cases in hospitals have dropped from 2.5 to 1 per cent. The sharp drop in deaths during confinement should be particularly mentioned.

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The Ministry of Health pays great attention to improving medical services in rural districts. Together with the growing well-being of collective farmers, villages are developing into

thriving and well-appointed communities with improved sanitation. Most villages have their own water-supply, public baths, parks and well-planned, paved streets. District practitioners supervise sanitary conditions in rural catering centres and give talks on matters of sanitation and health protection. 392 hospitals with total accommodation for 6,330 patients are operating in the districts. 435 dispensary districts and dispensaries have been set up, as well as 65 medical consultation centres for women and children, 926 medical centres staffed by doctor's assistants and trained midwives. There are 115 maternity homes in the rural communities, 187 nurseries for 5,265 babies, 465 seasonal nurseries, etc. There are surgeons, therapists, obstetricians, gynaecologists, pediatricists and other specialists working in all district administrative centres.

The dispensary method is the basis of medical aid to the rural population, furthering as it does, by the broad scope of its activities, early diagnostics and the restoration of normal functions of the human organism. Sanitary aviation plays a particular part in the system of medical aid to the rural population; it ensures the rapid transportation of patients, planned consultation by specialists and their transportation to highland villages. Great quantities of medicines and donors' blood have been rushed to the most inaccessible mountain fastnesses by airplanes and helicopters, saving many lives.

Rural practitioners and trained nurses are on the watch to see that safety measures and rules of sanitation are duly observed at collective farms and technical repair shops, that the regimen of labour and rest is not violated. When agricultural work is in full swing, medical workers change quarters: they move to the collective farmers' field camps and arrange medical stations there to give timely and skilled aid, if it should be wanted. At sowing and harvesting time, professors and assistant professors working at the Medical Institute and at various research centres also give collective farmers consultations and aid.

Last year rural district health protection department were abolished being found no longer necessary, district hospitals were fused with the district sanitary epidemiological stations and all responsibility for the work of medical centres in the district became incumbent on the head physician of the local hospital.

This furthered the development of initiative on the part of district practitioners and facilitated the solution of important questions of hygiene and prophylaxis. The head doctors are greatly aided by the growing creative initiative of practitioners, which makes it easier for them to decide how to improve medical services to the rural population.

Another new development in health protection in the districts was the improvement and enlarging of rural hospitals, reconstructed to accommodate from 25 to 35 patients, as well as the institution of special wards where patients are placed under the care of specialists.

Georgian collective farmers have shown much valuable initiative during the last few years. In many districts they have built hospitals and dispensaries at their own expense.

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The Soviet Government devotes special solicitude to mothers and children; this solicitude found expression in a number of governmental decisions, particularly in the decision of July 1944 on the increase of pecuniary aid to expectant mothers, mothers of large families and single mothers, on the institution of the honorary title of "Hero Mother" and the Order and Medal of Motherhood.

The State expends large sums of money on aid to mothers of large families and single mothers, as well as on the increasing number of medical institutions for mothers and children.

The number of such institutions, consulting centres for women and children, maternity homes, nurseries, children's dispensaries and hospitals is growing from year to year. Before the establishment of Soviet rule in Georgia, there were scarcely any institutions of this kind. Under Soviet rule, the rise of the material well-being and the cultural level of women, as well as the work of medical and prophylactic institutions for mothers and children, have decreased the occurrence of diseases and the death-rate among women and children. The most important of these special institutions are women's consulting centres; they keep women and children under observation during the pre-na-

tal period, during delivery and the post-natal period. The 134 women's consulting centres actually operating in the Republic do not limit their functions to medical and prophylactic work: they also investigate expectant mothers' living and working conditions and give talks on questions of sanitation.

Maternity homes and lying-in wards at hospitals provide accommodation for 3,219 cases, which makes it possible to hospitalize almost 100% of confinement cases. In rural communities, every hospital has a small lying-in ward for 2-3 patients, amounting to a total of 1,400.

During the last few years the number of deliveries at hospitals has considerably grown: e. g. while 82,027 cases were registered in 1950 in 1959 its number grew to 103,461, which makes an increase of 25.1 per cent. The fusion of consulting centres with maternity homes which was effected 10 years ago has served to materially improve the work of these institutions. The number of pathological deliveries has dropped, cases of post-natal sepsis have become rare and the number of gynaecological cases has decreased. Death in childbirth which reached 0.15 per cent in 1950 dropped to 0.05 in 1959.

Psycho-prophylactic methods of ensuring painless childbirth now employed at maternity homes in the Soviet Union are indeed a great achievement.

The Research Institute for Obstetrics and Gynaecology under the auspices of the Ministry of Health of the Georgian S.S.R. plays a significant part in infant-maternity health protection. In 1958 a Research Institute for the Physiology and Pathology of Women (the only one of its kind in the Soviet Union) and an Institute of Pediatrics were set up in Tbilisi.

During the years of Soviet rule, medical and prophylactic aid to children in Georgia has been developing on a new basis. The first children's consulting centre was opened in Tbilisi in 1922. At present there are 130 joint children's dispensaries and consulting centres and 450 pediatric districts. In cities they are joined to hospitals. Their work is carried out on the basis of all-round pediatric treatment and the cyclic principle.

In the cities there is 1 pediatricist to 1,000 children. Consulting centres play a significant part in child health protection. They keep children under observation from birth till the age of

three. Their work is based on the dispensary method. Consulting centres supervise the normal physical development of children and provide for special and combined prophylactic aid to them. Particular attention is devoted to newborn babies during the first month of life when they require special care; this is done by doctors and trained nurses from the consulting centres. In 1959 medical aid and home consultations were provided for 94 per cent of newborn babies.

At many of the consulting centres there are baby-food kitchens which are an important link in the system of infant health protection. Every consulting centre has a legal adviser's consulting room who helps to defend mother's and children's legal rights.

Children's dispensaries play a great part in providing medical and prophylactic aid to older children. These dispensaries have various special rooms.

They carry out a lot of prophylactic, sanitary and educational work in children's organisations, such as kindergartens, schools, children's homes, boarding school and pioneer camps.

There are 12 children's homes in the Republic, with 835 young residents, 3 rest homes for mothers and children with accommodation for ninety and 16 baby-food kitchens.

In Georgia both climatic and natural conditions favour the treatment of children at health resorts, such as Borjomi, Abastumani, Tsiklubo, Kojori, Manglisi, Kobuleti, etc. The number of children's sanatoria has grown in recent years. In 1953 there were 21 sanatoria with accommodation for 494. In 1959 there were 27 with accommodation for 2,250. Particular mention should be made of the children's sanatorium at Tsiklubo with accommodation for 50 children suffering from rheumatism and 25 for those suffering from poliomyelitis with residual phenomena.

Nurseries play a significant part in the life of women employed in industry and in offices. These nurseries enable Soviet women to take part in the social and cultural life of the country. Suffice it to say that by 1959 the number of nurseries had attained a total of 380. They took care of over 11 thousand babies. In the summer of 1959, 465 seasonal nurseries were opened on collective farms, taking care of 10,701 babies.

At present, all medical institutions for children, i. e. consulting centres, dispensaries and hospitals are fused to make up a single of medical centre—the children's hospital, which gives medical aid to children of all ages. This organizational measure was instrumental in radically improving medical aid to children, in improving the professional skill of physicians and in creating a single pediatric system. These hospitals are attached to definite districts.

Medical and prophylactic measures carried out in the Republic have yielded highly satisfactory results. As compared to pre-Soviet times, mortality has sharply decreased. But we cannot rest content at this, seeing that there is every condition to achieve still greater successes in mother and child health protection. The death-rate should be made to go down still more, medical services should be further improved and the birth-rate should rise.

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Rapid industrial development in Georgia made it necessary for medical institutions to devote more and more attention to medical and sanitary servicing of industrial workers. Mechanisation and automation, as well as other progressive methods of work, are being introduced in industry, raising labour productivity and improving working conditions. Medical and sanitation centres have been set up in the Republic's industrial centres, Tkvarcheli, Chiatura and Akhaltsikhe, with hospitals to accommodate 1,000 patients. The growth of the network of medical and prophylactic institutions in the Republic testifies to the attention devoted by medical services to working men. For example, in 1959, as compared to 1940, the number of medical centres was increased from 89 to 126, and the number of centres serviced by doctor's assistants grew from 76 to 168. In 1940 there were no medical centres with hospitals, like those just mentioned, while now there are 13 of them. The varied system of medical and sanitation services set up under the Soviet rule, as well as the combined system of health protection measures, have been instrumental in reducing the occurrence of disease and traumatism.

The above-mentioned medical centres, comprising hospitals and dispensaries, are a new form of medical service in industry, which has proved most rational. One of the main tasks of such centres is to periodically and thoroughly examine workers who have to be in contact with toxic substances; to keep under control and observation all cases of temporary incapacitation reported by expert commissions. The aim of periodical examination is to discover early symptoms of occupational diseases and to take the necessary prophylactic and sanitation measures for their prevention.

Together with the factory administration and trade union organizations, the medical centres work out a combined plan of sanitation measures to improve the sanitary and technical conditions of work, as well as medical and prophylactic service, to take measures for the prevention of epidemics, and to effect due control of all these measures.

The single combined plan of sanitation is aimed at drawing all interested organizations, such as the medical-sanitary centre, the epidemiological station, the factory administration and the trade union committee into the organization of mass measures of disease and trauma prevention.

Sanitation and prophylactic work at industrial enterprises has radically improved since medical stations were set up to serve every shop, which enabled the shop doctors to thoroughly investigate working conditions and to discover and eliminate in good time all causes of disease and traumatism. In shops with unhealthy industrial processes the doctors keep all working men and women under close observation, devoting particular attention to young workers.

Together with the plant management, the shop doctors improve working conditions by carrying out sanitation measures in the shops; they instruct the workers in the rudiments of sanitary knowledge.

The dispensary method is the main prophylactic method of combating chronic diseases. It ensures the combined application of medical-prophylactic, social and sanitation-hygienic measures, which serves to diminish the occurrence of disease. It is also applied to healthy workers who are grouped according to certain physiological indices and occupation. Those healthy workers

are taken under observation in the first place, whose working conditions place them under the influence of noxious factors, e. g., dust, sharp variations of temperature, noise, vibration, high frequency currents, etc. Such workers, together with those who come in contact with toxic substances, form a group that is placed under long-term dispensary observation. This helps the early discovery of morbid symptoms and the timely taking of medical and prophylactic measures.

Workers organizations help the shop doctor in his work. Among his assistants are social inspectors (members of the labour protection committee), delegates to the social insurance committee and active members of the Red Cross. Trade unions also do a great deal to help the shop doctor. Another assistant is the industrial sanitation doctor on the staff of the medical centre. The latter, who works in close contact with the industrial sanitation department of the district and the city sanitation and epidemiology station, gives the shop doctors the necessary assistance in investigating specific working conditions, in analysing general and occupational diseases and traumatism, and in preventing their occurrence.

Many large industrial enterprises in Georgia have their own sanatoria and dispensaries. On the decision of medical commissions, workers spend two or three weeks there. They are given medical care and treatment and extra nourishment; they have a good rest and restore their health without leaving their work.

In order to ensure individual prophylaxis and hygiene for women, there are women's hygiene rooms at industrial enterprises. Women can go there to take showers or any other hygienic procedure they may require.

So-called "question-and-answer" get-togethers are frequently arranged at factory clubs, when specialists deliver lectures and answer questions pertaining to the prophylaxis of diseases, to improvement of health, to the organization of rational work-and-rest regimens, to nutrition, etc. As a sequel, popular science films are demonstrated.

In order to raise sanitation standards at enterprises, "health days" are observed; on those days all the workers and personnel of the enterprise overhaul every shop, every corner to put everything in irreproachable order.



Large numbers of workers get together from time to time to hear talks and lectures delivered by medical men from medical and research institutes and by professors who carry out propaganda on questions of sanitation and hygiene.

A great deal of work aimed at the sanitation of working conditions is carried out by the Research Institute for Hygiene and Occupational Diseases, the Research Institute for Labour Protection (under the auspices of the Central Trade Union Council of the U. S. S. R.) and other research centres.

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The development of physical culture is of the greatest significance to good health, especially in young people. Thousands of people in the Republic go in for sports. Special dispensaries have been set up to keep them under medical observation. A great deal of attention is paid to the clinical and physiological grounds of methods of treatment by physical training.

Medical control of physical training, the training and specialization of medical personnel and research in this field are effected by: 6 dispensaries for physical training, the State Medical Institute, two chairs of the Advanced Medical Courses and by the Physical Training and Research Institute, as well as by Physical Training Colleges.

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During the years of Soviet rule, a powerful system of Sanitary-Epidemiological service was set up in Georgia. In the Georgian Republic, like in the whole of the Soviet Union, sanitation and epidemiological work is carried out not only by special centres, but by all medical-prophylactic and other medical institutions as well.

In urban communities this work is done by sanitary-epidemiological stations which were subordinated to the Sanitary-Epidemiological Department of the Ministry of Health in 1957.

The sweeping scope of construction of industrial enterprises, public institutions, and homes, hydrotechnical installations, health resorts, schools, etc., has called for important disease prevention measures and sanitation control, a most significant function of local and republican sanitary-epidemiological stations. These stations are staffed by specialists in urban planning, in protection of water supply and air from pollution and sewage systems—from damage.

Others specialize in school and industrial hygiene, in catering hygiene, etc. During 1959 alone, 750 medical certificates as to condition of sites for construction have been issued; 752 plans of building to be erected have been checked and 945 buildings were completed after control by medical men, 1855 units were controlled in 1959.

During the last two years, medical certificates and decisions have been issued on plans of urban construction and reconstruction, on public and civil construction; in particular, on the erection of hotels, department stores, etc.

The republican sanitary-epidemiological station, in collaboration with district sanitary-epidemiological station and medical prophylactic institutions, carries out combined measures of disease prevention and protection of water and air from pollution. Especial care is devoted to sources of water-supply and reservoirs. Supplies, drinking water, air and, specifically, the air in the shops of industrial enterprises and in buildings housing children's institutions are checked by laboratory tests. The republican sanitary-epidemiological station devotes particular attention to working conditions for miners, applying to the mine management whenever the situation calls for improvements. Rural homesteads are also subject to sanitary inspection.

Control and prophylaxis of infectious diseases has always been the most urgent task of sanitary-epidemiological stations. Prophylactic inoculations which are carried out on a broad scale in the Republic have always been in the centre of attention. An active part in this work, as well as in combating occupational diseases, was taken by several newly-opened research institutes, namely the Institute for Labour Hygiene and Occupational Diseases, the Institute of Parasitology and Tropical Malaria, the Institute of Vaccines and Sera and others. The researchers

on the staff of these institutes draw scientific deductions from collected experience, they study the channels of infection and work out prevention measures. Sanitary epidemiological stations systematically examine people employed in public catering and various service establishments, in order to discover bacillae-carriers. Great numbers of people undergo examination. Thus, for instance, over 100 thousand people were examined in 1959. All carriers are placed under observation treatment until cured.

Public catering sanitary inspectors work according to a strict plan aimed at prevention of alimentary and occupational poisoning. With this aim strict control of transportation and storage of supplies is established: this particularly concerns perishables. The preparation of food at public catering enterprises is also controlled.

The anti-epidemic service of the station takes systematic measures against the spread of general diseases among the population. Propaganda of medical and hygienic knowledge among the population plays a significant part in disease prevention. Sanitary education in the country is directed by the House of Sanitary Culture, by the Republican Sanitary-Epidemiological Station and its branches in Batumi, Sukhumi, Kutaisi and elsewhere. Similar work is carried out by all physicians working at any of the medical institutions in the Republic. Thousands of booklets and leaflets on disease prevention are circulated among the population. Hundreds of thousands of people in town and countryside help medical institutions in their work in health protection. Active members of communities help medical institutions to improve labour conditions, public services and amenities, to see that sanitation rules are duly observed in homes and hostels. The patriotic movement for high sanitary culture, for the improvement of working conditions, for a healthy home life is spreading and growing in strength.

Rising material well-being in the countryside makes it possible to accelerate cultural construction on collective farms.

As has already been stated, collective farmers build hospitals, dispensaries, etc. on their own initiative, besides those built at state expense. In this respect, the Makharadze, Zugdidi, Telavi, and other districts deserve special mention. In 1958 some ten of millions roubles were expended on the construction of

medical institutions in the Makharadze district alone. This is indeed valuable initiative, sprung from the people and aimed at serving the people.

Permanent committees of local Councils (Soviets) of Working People's Deputies and the Republican Trade Unions Council do a lot to help institutions of health protection. Hospitals and other medical institutions are helped by Assistance Councils consisting of representatives of the population and of the Trade Unions. The aim of these Councils is to contribute to the improvement of medical services. Official sanitary inspections, as well as volunteer sanitary inspections, take an active part in all sanitation measures prescribed and carried out by institutions of health protection. All volunteer work in this line is directed by the Red Cross and Crescent organization.

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Sunny and flowering is a land of health-resorts. 112 sanatoria, rest homes and boarding-houses with total accommodation for 16,615 patients and vacationers are actually functioning in the Republic. There are about 1,000 mineral springs with a daily discharge of approximately 80 million litres. Since the establishment of Soviet power in Georgia, about 1 billion roubles has been expended on development of health resorts. Such of these as Tskaltubo, Borjomi, Abastumani and Gagra enjoy great popularity. Every year hundreds of thousands of working people from all parts of the Soviet Union rest and recuperate at Georgian health-resorts. Industrial workers, collective farmers, intellectuals and office workers profit by the wealth of salubrious waters and other health-giving factors of these resorts, where both practical work and research are carried out. Physicians, biologists, climatologists, chemists, geologists, hydrologists, engineers and architects collaborate to decide questions of the further development of spas and health resorts. The best specialists in the Republic, professors and assistant professors consulting medical institutions at health resorts do a great deal to help local physicians to improve the health of people who come there for cures. A number of research centres study all

problems connected with health resorts and their work; these are: the Institute of Health Resorts and Physical Therapy (with branches at Sukhumi and Tskaltubo), as well as special chairs for the study of health resorts and spas, and so on.

Georgia is very rich in medicinal plants: therefore pharmaceutical industry is well developed there. Pharmaceutical factories have been built in Tbilisi and Batumi, a pharmaceutical research institute has been set up. Georgia supplies medicines, particularly caffeine, to all the Soviet Union and to some foreign countries. Local factories produce medicaments evolved by Georgian scientists, as, for instance, periplacing digallene neo, phyllesane, satiturine, etc. The income of pharmaceutical industry in the Republic runs into tens of millions of roubles.

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The successes of health protection in Georgia would scarcely have been so considerable, if they did not proceed from the achievements of medical science. Hundreds of researchers on the staffs of institutes and laboratories are working on urgent problems of medical practice and theory, on the basis of the theory of the great Russian physiologist, I. P. Pavlov. These scientists do a great deal to help institutions of health protection in improving medical service and in introducing achievements of medical science into practice.

Before the Revolution there was no Medical Institute to train doctors in Georgia; neither were there any medical research centres; at present there is a Medical Institute and advanced courses for physicians in Tbilisi, as well as 23 research institutes working in various branches of medical science. Research carried out at these institutes is of great value for the further progress of medical science.

All work in the line of health protection and research connected with it is directed by the Scientific Council of the Georgian Ministry of Health. The Council appoints members and directs the work of problem commissions which plan further research, as well as committees whose duty is to practically solve various problems of medicine and health protection.

Since the establishment of Soviet Power, the Tbilisi medical Institute has graduated over 16 thousand physicians and pharmacutists; about 26 thousand doctor's assistants and trained nurses have been trained at Medical Colleges.

Side by side with research centres, 79 chairs and clinics, 79 special departments and sections, as well as 40 laboratories, carry out research in medicine.

The results of research, as well as the experience of medical and prophylactic institutions, are made accessible to the public by the Medical Editorial Board of the „Sabchota Sakartvelo“ („Soviet Georgia“) publishing house, by the journal „Sabchota Meditsina“ („Soviet Medicine“) published by the Ministry of Health, as well as by medical journals published in Moscow.

Scientific conferences, sessions and conferences of physicians, both from Georgia and from other Transcaucasian republics, are regularly held. Papers read at these conferences and sessions are of great significance to the theory and practice of medicine and health protection.

The number of theses that have been presented (700 master's theses and 170 doctoral theses) speak eloquently of the growing scientific qualification of medical workers.

A Department of Medical and Biological Sciences has been created at the Georgian Academy of Sciences. The purpose of this department is to discover the most rational methods of medical and prophylactic aid, and to achieve further progress in medical science.

Besides, as has already been mentioned, medical institutions and health protection are greatly assisted by 13 Medical Scientific Societies, namely, the Surgeons Society, the Society of Therapy and Hygiene, etc.

During the current 7-year Plan period, it is intended to further improve health protection. In conformity with the 7-year plan of economic development (1959 — 1965), prophylactic work of health protection institutions and medical-sanitary services are to be improved; the number of medical-prophylactic institutions is to be increased.

As compared to 1958, by 1965 the number of beds in hospitals is to grow by 12,100; 58 new hospitals to accommodate 5,898 patients will be erected, as well as 1 hospital for child-